

Q2D 1025  
10-18-12  
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**From:** Risher, Mike  
**To:** Florum, Donna  
**Cc:** Smith, Keith W.; Cole, Connie; Peters, Lynden; King, Gary  
**Subject:** RE: Draft ltr to DEQ - disposal of blower & light bulb  
**Date:** Monday, June 18, 2012 2:21:54 PM

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Hello Donna,

We stopped using the vacuum pump (blower) last April or May (2011). It had minimal to no effect on the natural attenuation of the cyanide, but we believe it helped to dry the landfill some.

The light bulb we had hanging in the RCRA sump served no purpose other than to dry some of the air being pulled into the landfill by the blower. And after the blower was shut off, just to dry the drips of leachate entering the RCRA leachate collection sump.

A little background in case you want it...

The purpose of the vacuum pump (blower) was to draw air through the landfill to help speed up drying of the material (it was already drying well as evidenced by the leachate drain down curve).

The history here is that we had injected liquid CO<sub>2</sub> in 2004 and 2005 in a treatment attempt – add Carbon from CO<sub>2</sub> as a nutrient source for the bugs breaking down the Cyanide (similar to what we are doing at the CERCLA landfill, only with molasses and methanol there). There was some increase in the cyanide breakdown, but not enough to justify the cost so we stopped the injection. Our next step was to try and dry the landfill out quicker to reduce or stop leachate generation; thus reducing our efforts at the site. One potential benefit to the drying was that it might have drawn in ambient CO<sub>2</sub> in as a carbon source for the bugs that break down cyanide. This addition of CO<sub>2</sub> was minor and was not the primary reason for the blower.

Because the blower drew some air from the sump (you could occasionally hear it), we hung a 100W light bulb above the leachate in the sump to provide warm, dry air to circulate into the landfill. This also had an added benefit of drying the leachate in the sump.

Hope this helps.

Mike

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**From:** Florum, Donna  
**Sent:** Monday, June 18, 2012 10:40 AM  
**To:** Smith, Keith W.; Cole, Connie; Peters, Lynden; King, Gary; Risher, Mike

**Subject:** RE: Draft ltr to DEQ - disposal of blower & light bulb

When did we stop using the light bulb and blower? Could we say the light bulb and blower had minimal to no effect on the natural process occurring?

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**From:** Smith, Keith W.

**Sent:** Friday, June 15, 2012 2:14 PM

**To:** Cole, Connie; Florom, Donna; Peters, Lynden; King, Gary; Risher, Mike

**Subject:** RE: Draft ltr to DEQ - disposal of blower & light bulb

And what in the past 18 months would lead us to believe this? We probably don't want a lot of traffic here but I would suggest we proceed cautiously.

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**From:** Cole, Connie

**Sent:** Friday, June 15, 2012 12:11 PM

**To:** Smith, Keith W.; Florom, Donna; Peters, Lynden; King, Gary; Risher, Mike

**Subject:** RE: Draft ltr to DEQ - disposal of blower & light bulb

We specifically discussed with Fredrick what the implications of this would be –

- this approach would end the disagreement with EPA regarding whether the use of these units constituted treatment
- Lissa has committed that DEQ would not require us to submit a Part B application and the permit would remain a Post-Closure Permit
- DEQ believes this would address the concern for EPA overfiling the DEQ permit renewal

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**From:** Smith, Keith W.

**Sent:** Friday, June 15, 2012 12:05 PM

**To:** Cole, Connie; Florom, Donna; Peters, Lynden; King, Gary; Risher, Mike

**Subject:** RE: Draft ltr to DEQ - disposal of blower & light bulb

So are we agreeing with the decision that this was treatment?

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**From:** Cole, Connie

**Sent:** Friday, June 15, 2012 12:01 PM

**To:** Florom, Donna; Peters, Lynden; Smith, Keith W.; King, Gary; Risher, Mike

**Subject:** Draft ltr to DEQ - disposal of blower & light bulb

Team, please find a draft letter for your review that provides notification to DEQ that the blower and heat source will no longer be used at the site and the proposed method for disposal. This approach has been developed through discussion with Fredrick.

Connie Cole | Certified Project Manager | [connie.cole@arcadis-us.com](mailto:connie.cole@arcadis-us.com)

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